In the claims:

1-49. (Presently Canceled)

50. (Previously Presented): A method for identifying a compound capable of modulating an endothelial cell activity comprising:

a) contacting an endothelial cell with a test compound; and

b) assaying the ability of the test compound to modulate the expression of a GPCR 4941 nucleic acid or the activity of a GPCR 4941 polypeptide;

thereby identifying a compound capable of modulating an endothelial cell activity.

51. (Presently Amended): The method of claim 50, wherein the [said] endothelial cell activity is selected from the group consisting of cell proliferation, cell migration or expression of cell surface adhesion molecules.

52-69. (Presently Canceled)

70. (Presently Presented): A method for identifying a compound which binds to a polypeptide which is at least 95% identical to the amino acid sequence of SEQ ID NO:2, the method comprising:

i) contacting the polypeptide, or a cell expressing the polypeptide with a test compound under conditions suitable for binding; and

ii) detecting binding of the test compound to the polypeptide.

71. (Presently Presented): A method for identifying a compound which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:2, or a fragment thereof comprising at least 25 contiguous amino acids, the method comprising:

i) contacting the polypeptide, or a cell expressing the polypeptide with a test compound under conditions suitable for binding; and

ii) detecting binding of the test compound to the polypeptide.

72. (Presently Presented): The method of claim 70 wherein the polypeptide is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 95% identical to the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:3.

73. (Presently Presented): The method of claim 71, wherein the polypeptide is encoded by the nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:3.

74. (Presently Presented): The method of any one of claims 70 or 71, wherein the polypeptide further includes heterologous sequences.

75. (Presently Presented): The method of claim 71, wherein the polypeptide has GPCR 4941 activity.

76. (Presently Presented): The method of any one of claims 70 or 71, wherein the cell is a mammalian cell.

77. (Presently Presented): The method of any one of claims 70 or 71, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

a) direct detecting of test compound/polypeptide binding;
b) a competition binding assay;
c) an immunoassay;
d) a yeast two-hybrid assay; and
e) an assay for monitoring intracellular calcium, IP_3, cAMP, or diacylglycerol concentration.

78. The method of any one of claims 70 or 71, wherein the detection is by an assay for an activity of the polypeptide.

79. The method of claim 78, wherein the activity is selected from the group consisting of endothelial cell activity or tumor cell activity.